

ABSTRACT:

This study is done to solve the Doppler spectra equation by involving two -dimensional Fourier transform (2DFFT) to obtain a linear formula of sea radial component. The problem of influence of bandwidth on imaging moving ocean surface is analytically solved. Based on the maximum peak of Doppler spectra, the horizontal surface current is computed. The Doppler spectra model has been performed in the RADARSAT-1 SAR data. This study concludes that Doppler spectra model is an appropriate method to compute the sea surface current in the RADARSAT-1 SAR data.